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# National Animal Disease Laboratory . . . . in operation

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Aerial view of the National Animal Disease Laboratory located on a 318-acre tract just north of Ames, Ia. BN-13748-X

The National Animal Disease Laboratory -- the world's most modern veterinary research facility -- has been opened by the U. S. Department of Agriculture at Ames, Ia. The new \$16.5 million center is operated by the Agricultural Research Service for the study of livestock and poultry diseases that now cost consumers and livestock producers more than \$1.4 billion each year. Twenty percent of the center is to be used for diagnostic services and the testing and standardization of veterinary products needed to support ARS regulatory programs. Facilities and procedures at the center have been planned to insure safety to personnel, eliminate contamination of research projects, and prevent escape of disease agents to the surrounding community.

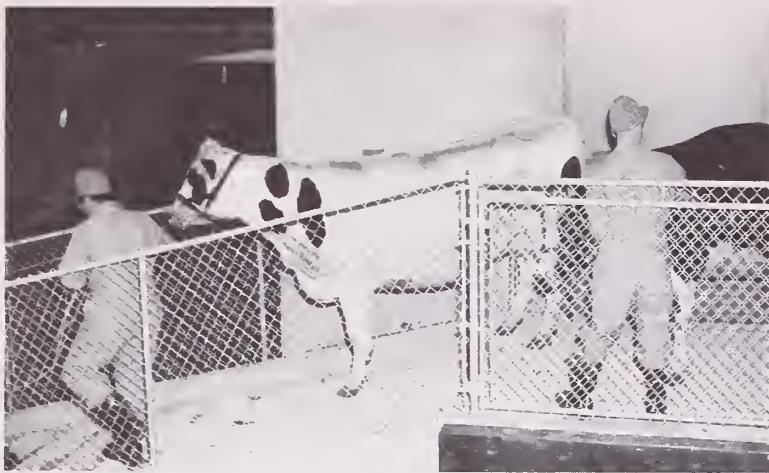
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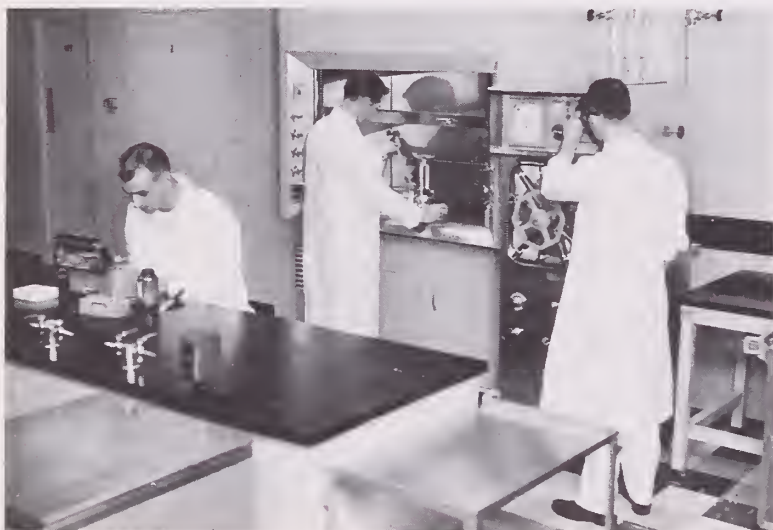
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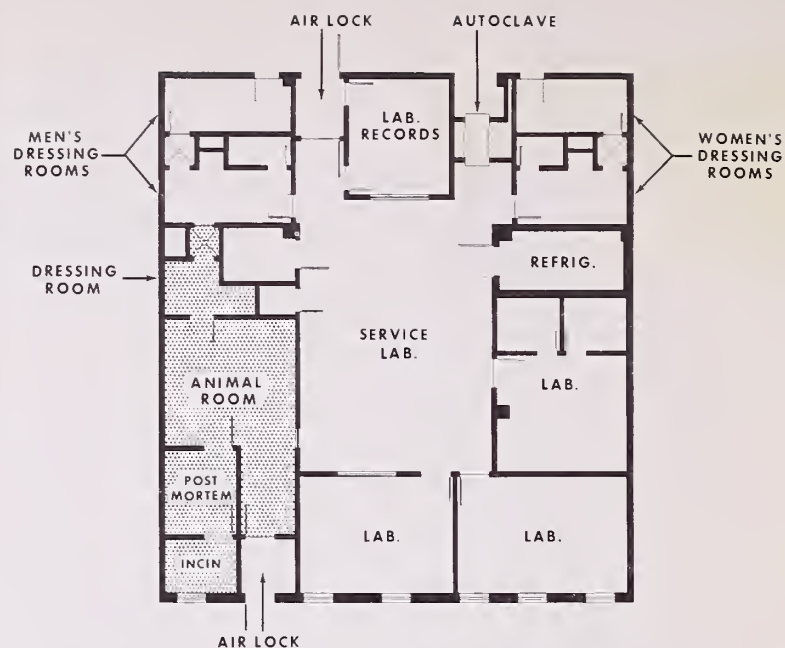
A herd of disease-free cattle from USDA's Agricultural Research Center, Beltsville, Md., enters the quarantine area. Chickens, hogs, guinea pigs, and rabbits were also shipped from Beltsville to provide a nucleus of healthy breeding animals for research. N - 41222



Research team in one of the isolated animal disease laboratory units. L to r: Jim Hurd, medical biological technician, weighs specimen; bacteriologist Joe Songer transfers toxic fluid under a fume hood; Jim Rounds, technician, adjusts autoclave. N - 40801



Each laboratory unit has its own glass-enclosed inoculation booth where cultures of disease organisms may be safely handled. Technician Jim Hurd transfers virus culture of Newcastle disease, one of the infectious diseases of poultry, under study here. N - 40803



Complete laboratory units, each isolated from the others, make it possible to study a number of diseases simultaneously. Workers enter through a dressing room where they leave all personal belongings and change into uniforms. To leave the isolated unit they go through a shower room to get back into the dressing room. DN - 1974



Biological technician Jim Rounds removes guinea pig from cage in one of the animal rooms. Other small animals used in research on animal diseases are mice, rats, rabbits, hamsters and ferrets. As work progresses, a scientific team may use large animals in their experiments. N - 40817





This guinea pig is being used to test the effectiveness of commercially produced modified live virus vaccine. Testing and standardizing the growing number of veterinary biologics is one of the ARS protective regulatory services provided at the new laboratory. N - 40820



Joe Songer, bacteriologist, makes post mortem examination in special room provided in each isolated laboratory unit. When the examination is completed, the animal is burned in a small incinerator. N - 40821



Technician Jim Hurd examines bird in isolation room in one of the large animal laboratories. Different temperatures may be maintained in adjoining cages by use of special equipment. Any normal temperature - humidity combination found in the United States can be duplicated. N - 40814



Bacteriologist Joe Songer loads cups of serum from a diseased animal into rotor to be placed in refrigerated centrifuge. Centrifuging is one step in the analysis of the particles in the serum. N - 40797

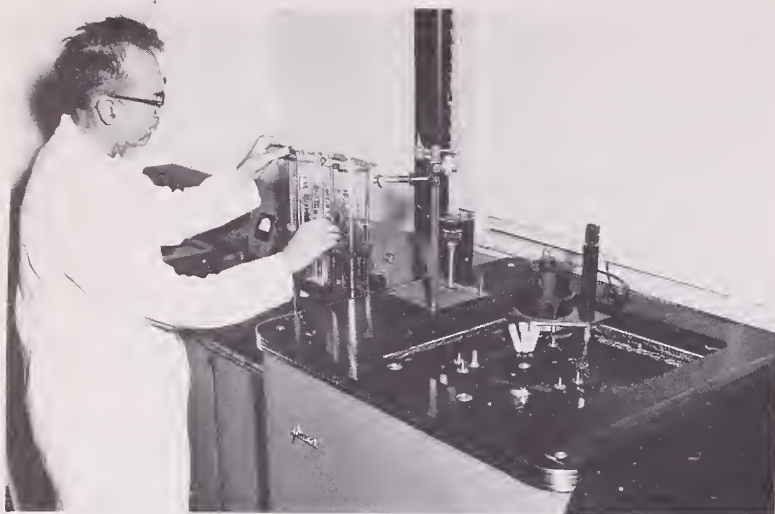


A built - to - order electron microscope, used here by Dr. A. E. Ritchie, is among the modern electronic research tools provided at the new laboratory. To insure accuracy it stands on a foundation built independently from the rest of the building in which it is housed. N - 40934

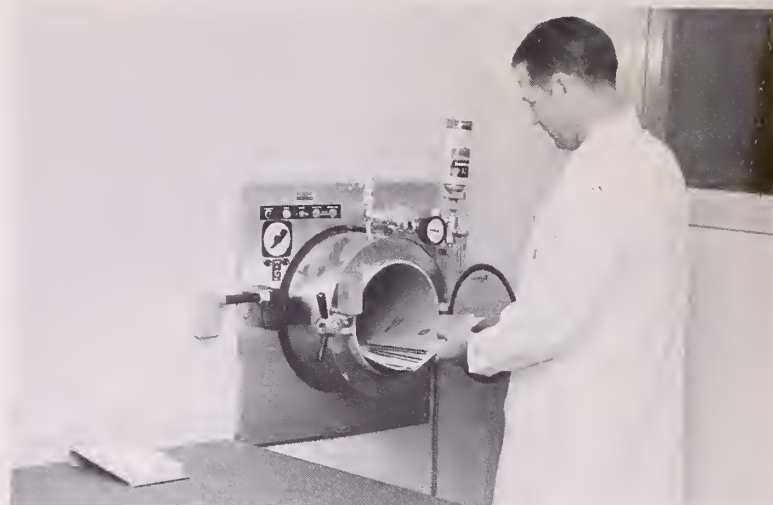


Analytical ultracentrifuge - - another valuable research aid. It is being used by Dr. Martin Roepke. The instrument is for study of the basic properties of infectious animal disease viruses. N - 40937





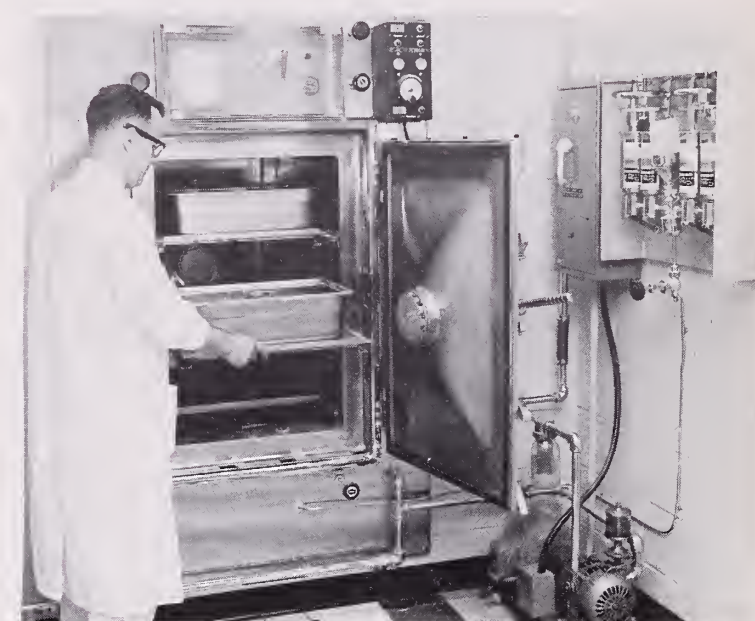
Biochemist Dr. W. McCullough assembles glass cells containing blood serum for analysis by electrophoresis-diffusion. The glass cell assembly is placed in water-bath on the right. The instrument contains a high-precision optical system for observation and photography. N - 40939



Bacteriologist Joe Songer demonstrates how books and reference papers used within an isolated laboratory unit are decontaminated. Materials that cannot be treated with steam, are placed in a pass-clave ( a small autoclave ) for treatment with ethylene oxide, a gas that does not harm paper. N - 40804



The pass-clave is built into the wall between the records room of the laboratory unit and the outside corridor. Safety Officer James F. Sullivan removes books from the corridor side, after overnight treatment. They may now be circulated without danger of spreading disease. N - 40805



Laboratory clothing, glassware, and other reusable supplies are treated in a large wall autoclave that opens on the "clean" service corridor outside the unit. Automatic controls prevent the opening of both doors at the same time. N - 40806



Laureen Bennett, technician, unloads glassware from central service dishwasher onto cart. The glassware is given 2 detergent washes and 3 rinses, and then cooled, so it is chemically clean when it comes off the dishwasher belt. N - 40810



A conference room, seating 200, is available for seminars and scientific meetings relating to animal disease research and regulatory problems. Several small rooms can be used for mealtime conferences. N - 40826